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First Named Inventor Sharat Chander

Art Unit 2682

Examiner Name Charles Craver

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### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Law Offices of Walter W. Duft		
Signature			
Printed name	Walter W. Duft		
Date	April 25, 2005	Reg. No.	31,948

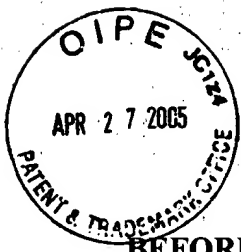
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BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF APPEALS AND INTERFERENCES

In re Application of: )  
SHARAT CHANDER ET AL. ) Group Art Unit: 2682  
SERIAL NO.: 09/480,013 ) Confirmation No.: 3803  
FILED: January 10, 2000 ) Examiner: C. Craver  
FOR: SYSTEM AND METHOD FOR )  
PROVIDING INDICATION OF )  
MAXIMUM TELESERVICE PAYLOAD )  
SIZE IN A WIRELESS )  
TELECOMMUNICATION NETWORK )

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**BRIEF ON APPEAL**

This is an appeal from the final rejection dated August 25, 2004, refusing claims 1-42 (set forth in APPENDIX A), representing all of the claims in the subject application.

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April 25, 2005  
(Date)

Walter W. Duft  
(Applicant, Assignee, Registered Representative)

(Signature)

April 25, 2005  
Date of Signature)

### **REAL PARTY IN INTEREST**

Lucent Technologies, Inc., Murray Hill, New Jersey.

### **RELATED APPEALS AND INTERFERENCES**

None.

### **STATUS OF THE CLAIMS**

Claims 1-42 are in the application.

Claims 1-42 are rejected.

Claims 1-42 are appealed.

### **STATUS OF AMENDMENTS**

In response to the final rejection of claims 1-42 mailed on August 25, 2004, an amendment after final rejection was filed on October 25, 2004, amending claims 41 and 42 to correct a minor grammatical error in line 1 of each claim. Reconsideration of the final rejection of all claims was also requested. An advisory action mailed on February 9, 2005 indicated that the request for reconsideration had been considered but was not deemed to place the application in condition for allowance. The advisory action gave no indication that the amendments to claims 41 and 42 would not be entered. It is therefore assumed that the amendments were entered.

### **SUMMARY OF THE INVENTION**

Wireless teleservice messaging (e.g. text messaging) is a form of communication that allows information payloads (e.g. displayable text, graphics, executables, etc.) to be sent to mobile stations (MS) (e.g., cellular telephones) in manageable form (Specification page 1, line

15 – page 2, line 1). Referring to Fig. 1 of the drawings, mobile stations (20 or 22) receive teleservice messages by way of a network sending entity (NSE) (40), such as a Short Message Service (SMS) Center (SMSC), a Message Center (MC), a Wireless Application Protocol (WAP) Server, or other content provider (Specification page 2, lines 4-10, page 7; lines 1-13). The messages are routed from the network sending entity (40) to the mobile stations (20 or 22) via network receiving entities that serve the mobile stations, such as a Mobile Switching Center (MSC) (4 or 6) or a Base Station (BS) (16 or 18) (Specification page 2, lines 4-10; page 7, lines 13-24). If one (or more) of the network receiving entities (4, 6, 16 or 18) cannot handle the default message payload size used by the network sending entity (40), the latter must be informed of the payload size limitation so that the payload can be segmented into smaller information units that the network receiving entities can process (Specification page 2, lines 10-13). In some prior art systems, the network sending entity (40) is not advised of the payload size limitation until after it attempts to send the teleservice message (Specification page 8, lines 1-3). It then has to resend the message using a smaller segment size. This causes delay and needlessly ties up network resources (Specification page 2, lines 10-13).

The idea underlying the present invention is to provide advance notice to the network sending entity (40) of the maximum teleservice payload size that can be handled by network receiving entities (4, 6, 16 or 18) acting on behalf of a mobile station (20 or 22) (Specification page 2, lines 21-26). The payload size indication is utilized by the network sending entity (40) to format the size of teleservice messages sent by the network sending entity to the mobile station (20 or 22) via the network receiving entities (4, 6, 16 or 18), such that resegmentation and retransmission are avoided (Specification page 2, line 27 – page 2, line 8).

According to independent claims 1, 11, 21, 31, 41 and 42, the task of notifying the network sending entity (40) of the maximum teleservice payload size that can be handled by network receiving entities (4, 6, 16 or 18) associated with a mobile station (20 or 22) is handled transparently during operations of the wireless network. In particular, the payload size indication is originated at one of the network receiving entities (4, 6, 16 or 18) as a message parameter during standard registration message exchange involving the network receiving entity (Specification page 3, lines 18-23; page 8, lines 3-8 and lines 18-23; page 9, lines 1-10). Advantageously, no special payload size queries or processing are required.

According to dependent claims 2, 12, 22, 32, 40 and 42, the payload size indication is passed during standard registration message exchange from a network receiving entity (4, 6, 16 or 18) to a database (HLR 8 or 9) associated with the mobile station (20 or 22). The payload size indication is then passed during standard registration message exchange from the database (8 or 9) to the network sending entity (40) (Specification page 3, lines 9-17; page 8, lines 8-17).

According to dependent claims 3, 13, 23 and 33, the payload size indication is passed during standard registration message exchange from a network receiving entity (4, 6, 16 or 18) to the network sending entity (40).

According to dependent claims 9, 19, 29 and 39, the standard registration message exchange between a network receiving entity (4, 6, 16 or 18) and a database (8 or 9) includes one of an Authentication On Initial Access message exchange, a Direct FeatureRequest With Call Routing message exchange, a LocationRequest message exchange, an OriginationRequest message exchange, a QualificationRequest message exchange, a RegistrationNotification

message exchange, or a TransferToNumberRequest message exchange (Figs. 2-7 and 10; Specification page 9, line 15 – page 12, line 2 and page 24, line 1 – page 26, line 10).

According to claims 10, 20, 30 and 40, the standard registration message exchange between a network receiving entity (4, 6, 16 or 18) and the network sending entity (40) includes one of an SMSNotification message exchange or an SMSRequest message exchange.

### **THE REJECTIONS**

Claims 1-4, 7-14, 17-24, 27-34 and 37-40 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Hansson et al. (US 6,400,942) in view of Hult et al. (US 5,822,700) and Ross et al. (US 6,263,212).

Claims 5, 15, 25 and 35 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Hansson in view of Hult and Ross as applied to claims 3, 13, 23 and 33, respectively, and further in view of Farris (US 5,805,997).

Claims 6, 16, 26 and 36 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Hansson in view of Hult and Ross as applied to claims 3, 13, 23 and 33, respectively, and further in view of Einola (US 6,434,393).

Claims 42 and 42 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Hansson in view of Hult and Ross.

### **GROUPING OF CLAIMS**

The rejected claims do not stand or fall together. The claim groups that are independently patentable, are as follows:

Claim Group I: Claims 1, 4-8, 11, 14-18, 21, 24-28, 31 and 34-38.

Claim Group II: Claims 2, 12, 22, 32, 41 and 42.

Claim Group III: Claims 3, 13, 23 and 33.

Claim Group IV: Claims 9, 19, 29 and 39.

Claim Group V: Claims 10, 20, 30 and 40.

## **THE ISSUES**

### **Issue No. 1:**

Whether the claims of Claim Group I (claims 1, 4-8, 11, 14-18, 21, 24-28, 31 and 34-38), are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.

### **Issue No. 2:**

Whether the claims of Claim Group II (claims 2, 12, 22, 32, 41 and 42) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.

### **Issue No. 3:**

Whether the claims of Claim Group III (claims 3, 13, 23 and 33) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.

### **Issue No. 4:**

Whether the claims of Claim Group IV (claims 9, 19, 29 and 39) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.

### **Issue No. 5:**

Whether the claims of Claim Group V (claims 10, 20, 30 and 40) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.

## **ARGUMENT AND DISCUSSION**

### **A. Issue No. 1: Whether the claims of Claim Group I (claims 1, 4-8, 11, 14-18, 21, 24-28, 31 and 34-38), are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.**

As set forth in section (F) below, the dependent claims of claim group I are believed to be allowable based on their respective parent claims. According, this section (A) discusses only the independent claims of claim group I, namely, claims 1, 11, 21 and 31.

Independent claims 1, 11, 21 and 31 are all directed to providing improved teleservice messaging to a mobile station in a wireless communication network. Claims 1 and 21 are method claims. Claims 11 and 31 are system claims. Claims 1 and 11 relate to each other in that they address an implementation of the invention from the standpoint of a network sending entity. In particular, claims 1 and 11 refer to a network sending entity "receiving" and "utilizing" an indication of maximum teleservice payload size. Claims 21 and 31 relate to each other in that they address an implementation of the invention from the standpoint of a network receiving entity. In particular, claims 21 and 31 refer to a network receiving entity "providing" an indication of maximum teleservice payload size that is "utilizable by" a network sending entity.

Claims 1 and 21 are representative of these two different perspectives, and are set forth below as follows:

1. A method for providing improved teleservice messaging to a mobile station in a wireless communication network, comprising the steps of:

- receiving at a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said mobile station via network receiving entities serving said mobile station;



utilizing said payload size indication at said network sending entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities; and

said payload size indication being originated from one of said network receiving entities as a message parameter during standard registration message exchange involving said one network receiving entity.

21. A method for providing improved teleservice messaging to a mobile station in a wireless communication network, comprising the steps of:

providing to a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said mobile station via network receiving entities serving said mobile station;

said maximum teleservice payload size indication being utilizable by said sending network entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities; and

said payload size indication being originated from one of said network receiving entities as a message parameter during standard registration message exchange involving said one network receiving entity.

As is the case with independent claims 1, 11, 21 and 31 themselves, the dependent claim sets respectively associated with each of independent claims 1, 11, 21 and 31 tend to parallel each other.

In the final rejection of Claims 1, 11, 21 and 31 under 35 U.S.C. section 103(a), Hansson is said to teach the use of an indication of maximum teleservice size at a network sending entity (SMSC 13) (col. 3, lines 1-11; col. 4, lines 22-35) and to structure message payload size accordingly (col. 3, lines 1-11; col. 4, lines 22-35; col. 6, line 42 - col. 7, line 13). The final rejection concedes, however, that Hansson "fails to disclose that the network sending entity receives said indication (i.e., it is provided to it), implying that the indication is created or calculated at another site."

Hult is said to teach a wireless communication system entity (an MSC 30) utilizing a channel load measurement to determine a teleservice size (col. 2, lines 38-65) after the load measurement is provided by another entity in the system (a channel load measurement device 40) (col. 3, lines 2-13 and line 56 – col. 4, line 13). The rejection states that the “purpose of this is to allow the indication to be tailored to the system (col. 1, lines 50-57), which improves bandwidth usage (col. 2, lines 7-13).” Although not relevant to the invention, Hult is also said to disclose the use of an HLR (32) to locate the MSC (30).

The rejection further states that it would have been obvious to modify Hansson in view of Hult so that an indication of maximum teleservice payload size is provided to a network sending entity from another cellular network entity. However, the rejection concedes that Hult is silent as to sending the indication as a parameter in a standard registration message.

Ross (Fig. 2) is said to teach a network sending entity (50) connected to an HLR (52) that stores a maximum message size indication for a particular MSC (54) (Figs. 7-8 and col. 10, lines 16-65), and that the network sending entity (50) retrieves the indication from the HLR (52). The rejection further states that there would be “inherent” message exchange between the MSC (54) and the HLR (52) that would include the maximum message size indication as a parameter.

Applicants submit that the combination of Hansson, Hult and Ross fails to disclose or suggest the subject matter of claims 1, 11, 21 and 31, as required to support a conclusion of obviousness under 35 U.S.C. section 103(a). Hansson is directed to the broadcasting of teleservice messages of large size to multiple mobile recipients over a paging channel. In order to do this, a message center (13) receiving a broadcast message from a message originator breaks up the message if it is larger than a predetermined number of octets into a sequence of smaller

size segments that can then be sent out as paging messages (col. 3, lines 7-31). As acknowledged in the final rejection, there is no discussion in Hanson as to how the predetermined number of octets is provided to the message center for use in determining whether a broadcast message needs to be segmented. For all that can be determined from the reference, the predetermined number of octets may be manually provisioned at the message center (13) by an administrator (see discussion Ross below).

Hult discloses a conventional method for measuring the load being carried on the control channel of a cellular telephone network air interface and determining a maximum permitted teleservice message length for control channel transmission (col. 3, lines 56-65). As shown in Fig. 2 (elements 100 and 102), this appears to be a real-time process involving repeated communication between the MSC (30) and its associated channel load measurement device (40) (see Fig. 1). Using the load measurement information, the MSC (30) calculates a maximum size that can be handled by the control channel. Teleservice messages with lengths less than the permitted maximum are authorized for transmission over the control channel. Any teleservice message having a length exceeding the determined maximum length is refused authorization for control channel transmission. The refused messages must either be saved for control channel transmission at a later time when the measured loading permits, or transmitted over the traffic channel portion of the air interface (Abstract). Note that the MC (message center) (20) in Fig. 1 of Hult is not provided with the results of the maximum teleservice message measurement. It is only the MSC (30) that receives this information from the channel load measurement device (40). The MSC (30) does not use the information to format the size of teleservice messages.

Rather, the information is used to either store a message for subsequent delivery when control channel volume decreases or to send the message over a traffic channel.

Applicants thus dispute the first logical premise of the final rejection; namely, that Hult would have suggested a modification to Hansson so that the Hansson message center (13) receives or has provided to it an indication of maximum teleservice payload size. First, Hult does not engage in message size formatting as in Hansson, and instead uses channel load monitoring for a different purpose. Second, Hult's real-time channel load monitoring processing may be fine for an MSC (30) and its associated load measuring device (40), but would not scale well in a Hansson environment wherein a message center (13) would have to process repeated load measurement reports from not just one load measurement device, but from plural load measurement devices associated with the multiple MSCs that are normally present in a cellular network.

Ross discloses an SMSC (2 in Fig. 1; 50 in Fig. 2) having the ability to dynamically segment a teleservice message into message segments of predetermined length if the recipient is connected via a telecommunications network having a shorter message size capability than the sender (col. 10, lines 36-46). However, as appears to be the case in Hansson, the maximum message length for each network entity must be indicated in advance to the SMSC (2, 50) by a human system administrator (col. 4, lines 1-7; col. 5, lines 8-12; and col. 6, lines 34-48). This is cumbersome from the standpoint of initial data entry as well as the periodic updating thereof as network capabilities change. Contrary to the statements made in the final rejection, it is not the case that Ross' SMSC (2, 50) accesses an HLR (52) to retrieve teleservice message size information. Although the passage at col. 10, lines 39-43 of Ross states with reference to Fig. 7

that "an SMSC may access an MSC Attribute Table which may contain the MSC's address and the maximum message size," there is no indication that this table (see Fig. 8) is stored in the HLR (52) and every indication that it is stored with the SMSC (2, 50). The HLR (52) is discussed with reference to Fig. 2 at col. 5, lines 44-58. Here, it is stated only that the HLR (52) is consulted to identify the MSC associated with a mobile station. There is no mention in this passage (or anywhere else in Ross) of the MSC attribute table of Fig. 8 being part of the HLR (52). On the contrary, that this table is local to the SMSC (2), and is in fact stored in an SMSC configuration database (10 of Fig. 1), is apparent from the passages at col. 4, lines 1-7; col. 5, lines 8-12; and col. 6, lines 34-48.

Col. 4, lines 1-7 states that:

"Initially, the *SMSC administrator* may indicate a maximum message length for each network entity connected to the SMSC. The SMSC may then use this maximum message length to segment short message going to those networks with a shorter message length than the standard 256 byte length on the SMSC, and send the segments separately. [Emphasis added].

Col. 5, lines 8-12 states that:

"The SMSC accesses a plurality of databases to process short messages including an *SMSC configuration database 10*, which stores system-wide characteristics of the SMSC such as SMSC point code and subsystem number, *maximum message size*, Global Title translation flag, etc. . . . [Emphasis added].

Col. 6, lines 34-48 states that:

"In the subscribers table 72, a field such as a "mkt\_seg\_id" is included for each subscriber to associate that subscriber with a given market segment ID. This segmentation of subscribers may be done using many different grouping methods. For example, subscribers may be associated by their physical locations, usage characteristics, or the network to which they are connected. This allows an *SMSC administrator*, for example, to optimally set the storage and delivery characteristics based upon the subscriber's profiles, network capacity, and SMSC capacity, *switch capabilities*, current system load, etc. The variables stored in the market segment table 70 may then be used to affect the storage and delivery characteristics for each subscriber based upon the market segment ID for that subscriber. [Emphasis added].

Applicants thus dispute the second logical premise of the rejection of claims 1, 11, 21 and 31; namely, that Ross teaches a network sending entity receiving or being provided with an indication of maximum teleservice payload size from a network receiving entity.

Finally, even assuming Ross can somehow be construed as showing payload size indication storage in an HLR for retrieval by an SMSC (which Applicants vigorously dispute), the assertion that Ross inherently discloses standard registration message exchange as the mechanism for transferring the indication between network entities is pure speculation and hindsight analysis that finds no support in the reference. Indeed, if Ross truly utilized an HLR-SMSC exchange of a payload size indication, there is every reason to believe that the exchange would be based on the perceived need for a new protocol. Such would be the routine and expected engineering response, not Applicants' unobvious and rather elegant approach of using standard registration message exchange with the size indication being added as a parameter.

The references of record thus cannot be said to teach or suggest the subject matter of rejected claims 1, 11, 21 and 31, considered as a whole, including the automated provision of payload size information to a network sending entity using standard registration message exchange as the vehicle for imparting such information. It is axiomatic that "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974)." MPEP section 2143.03, Eighth Edition (August 2001). It is also the case that the required obviousness showing "must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not 'evidence'." Harmon, Patents and the Federal Circuit, section 4.7(a)

(Sixth Ed. 2003). Ross, the one reference relied to evidence a teaching of standard registration message exchange for conveying a maximum teleservice payload size indication from a network receiving entity to a network sending entity, contains no such teaching, inherently or otherwise. Not only is there no mention of standard registration message exchange in Ross, there is not even any transfer of teleservice payload size information insofar as Ross (as appears to be the case with Hansson) relies on manual administrative provisioning of such information at the network sending entity. Accordingly, given the complete absence of any teaching or suggestion of a recited claim element in the cited references, the requirements of 35 U.S.C. 103(a) cannot be satisfied.

**B. Issue No. 2: Whether the claims of Claim Group II (claims 2, 12, 22, 32, 41 and 42) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.**

Claims 2, 12, 22 and 32 respectively depend from independent claims 1, 11, 21 and 31, and additionally recite that the payload size indication is passed during standard registration message exchange from a network receiving entity to a database associated with a mobile station, and wherein the payload size indication is passed during standard registration message exchange from the database to the network sending entity. Independent claims 41 and 42 also recite this two-stage transfer of the payload size indication from a network receiving entity to a database, and from the database to a network sending entity. The final rejection relies on Ross as teaching the storage of payload size information in an HLR that has been provided via standard registration message exchange from an MSC, which is then retrieved by the SMSC (apparently also using standard registration message exchange). As discussed above relative to Issue I, Ross

does not store payload size information in an HLR, and instead relies on manual provisioning of such information via an administrator at an SMSC. *A fortiori*, there is no mention of using standard registration message exchange to transfer payload size information, either from an MSC to an HLR, or from an HLR to an SMSC.

**C. Issue No. 3: Whether the claims of Claim Group III (claims 3, 13, 23 and 33) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.**

Claims 3, 13, 23 and 33 respectively depend from independent claims 1, 11, 21 and 31, and additionally recite that the payload size indication is passed during standard registration message exchange from a network receiving entity to the network sending entity. Again, as discussed above relative to Issues I and II, Ross does not even teach passing payload size information from a network receiving entity to a network sending entity, let alone providing payload size information via standard registration message exchange.

**D. Issue No. 4: Whether the claims of Claim Group IV (claims 9, 19, 29 and 39) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.**

Claims 9, 19, 29 and 39 respectively depend from independent claims 1, 11, 21 and 31, and additionally recite that the standard registration message exchange includes one of an Authentication On Initial Access message exchange, a Direct FeatureRequest With Call Routing message exchange, a LocationRequest message exchange, an OriginationRequest message exchange, a QualificationRequest message exchange, a RegistrationNotification message exchange, or a TransferToNumberRequest message exchange. Because Ross does not disclose or suggest the use of standard registration message exchange as a mechanism for passing an indication of maximum teleservice payload size, he could not have suggested use of the



particular messages of claims 9, 19, 29 and 39. Moreover, even assuming Ross did suggest the use of standard registration message exchange for payload size information, there is no teaching or suggestion of the specified registration messages and it would not have been routine or obvious to use the same.

**E. Issue No. 5: Whether the claims of Claim Group V (claims 10, 20, 30 and 40) are unpatentable under 35 U.S.C. Section 103(a) based on Hansson in view of Hult and Ross.**

Claims 10, 20, 30 and 40 respectively depend from independent claims 1, 11, 21 and 31, and additionally recite that the standard registration message exchange includes one of an SMSNotification message exchange or an SMSRequest message exchange. Because Ross does not disclose or suggest the use of standard registration message exchange as a mechanism for passing an indication of maximum teleservice payload size, he could not have suggested use of the particular messages of claims 10, 20, 30 and 40. Moreover, even assuming Ross did suggest the use of standard registration message exchange for payload size information, there is no teaching or suggestion of the specified registration messages and it would not have been routine or obvious to use the same.

**F. Remaining Dependent Claims 4-8, 14-18, 24-28 and 34-38**

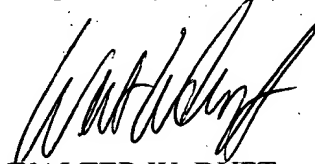
Remaining dependent claims 4-8, 14-18, 24-28 and 34-38 should be allowable based on their respective parent claims, all of which are discussed above.

## SUMMARY AND CONCLUSION

For the reasons pointed out above, it is submitted that the claims in the present application clearly and patentably distinguish over the cited references. Accordingly, the final rejection should be reversed and the examining branch should be ordered to pass the case to issue.

A check in the amount of \$500.00 is enclosed to cover the Appeal Brief fee.

Respectfully submitted,



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## **APPENDIX A**

1. A method for providing improved teleservice messaging to a mobile station in a wireless communication network, comprising the steps of:

receiving at a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said mobile station via network receiving entities serving said mobile station;

utilizing said payload size indication at said network sending entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities; and

said payload size indication being originated from one of said network receiving entities as a message parameter during standard registration message exchange involving said one network receiving entity.

2. A method in accordance with Claim 1 wherein said payload size indication is passed during standard registration message exchange from said one network receiving entity to a database associated with said mobile station, and wherein said payload size indication is passed during standard registration message exchange from said database to said network sending entity.

3. A method in accordance with Claim 1 wherein said payload size indication is passed during standard registration message exchange from said one network receiving entity to said network sending entity.

4. A method in accordance with Claim 1 wherein said one network receiving entity is a Mobile Switching Center (MSC).

5. A method in accordance with Claim 1 wherein said one network receiving entity is a Mobile Data Intermediate System (MDIS).

6. A method in accordance with Claim 1 wherein said one network receiving entity is a Serving GPRS Support Node (SGSN).

7. A method in accordance with Claim 1 wherein said network sending entity is one of a Short Message Service Center (SMSC), a Message Center (MC) or a Wireless Application Protocol (WAP) server.

8. A method in accordance with Claim 2 wherein said database is a Home Location Register (HLR).

9. A method in accordance with Claim 2 wherein said standard registration message exchange includes one of an Authentication On Initial Access message exchange, a Direct FeatureRequest With Call Routing message exchange, a LocationRequest message exchange, an OriginationRequest message exchange, a QualificationRequest message exchange, a RegistrationNotification message exchange, or a TransferToNumberRequest message exchange.

10. A method in accordance with Claim 3 wherein said standard registration message exchange includes one of an SMSNotification message exchange or an SMSRequest message exchange.

11. A system for providing improved teleservice messaging to a mobile station in a wireless communication network, comprising:

means for receiving at a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said mobile station via network receiving entities serving said mobile station;

means for utilizing said payload size indication at said network sending entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities; and

means for originating said payload size indication from one of said network receiving entities as a message parameter during standard registration message exchange involving said one network receiving entity.

12. A system in accordance with Claim 11 wherein said originating means is adapted to pass said payload size indication during standard registration message exchange from said one network receiving entity to a database associated with said mobile station, and wherein said receiving means is adapted to receive said payload size indication during standard registration message exchange from said database to said network sending entity.

13. A system in accordance with Claim 11 wherein said receiving means is adapted to receive said payload size indication during standard registration message exchange from said one network receiving entity to said network sending entity.

14. A system in accordance with Claim 11 wherein said one network receiving entity is a Mobile Switching Center (MSC).

15. A system in accordance with Claim 11 wherein said one network receiving entity is a Mobile Data Intermediate System (MDIS).

16. A system in accordance with Claim 11 wherein said one network receiving entity is a Serving GPRS Support Node (SGSN).

17. A system in accordance with Claim 11 wherein said network sending entity is one of a Short Message Service Center (SMSC), a Message Center (MC) or a Wireless Application Protocol (WAP) server.

18. A system in accordance with Claim 12 wherein said database is a Home Location Register (HLR).

19. A system in accordance with Claim 12 wherein said standard registration message exchange includes one of an Authentication On Initial Access message exchange, a Direct

FeatureRequest With Call Routing message exchange, a LocationRequest message exchange, an OriginationRequest message exchange, a QualificationRequest message exchange, a RegistrationNotification message exchange, or a TransferToNumberRequest message exchange.

20. A system in accordance with Claim 13 wherein said standard registration message exchange includes one of an SMSNotification message exchange or an SMSRequest message exchange.

21. A method for providing improved teleservice messaging to a mobile station in a wireless communication network, comprising the steps of:

providing to a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said mobile station via network receiving entities serving said mobile station;

said maximum teleservice payload size indication being utilizable by said sending network entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities; and

said payload size indication being originated from one of said network receiving entities as a message parameter during standard registration message exchange involving said one network receiving entity.

22. A method in accordance with Claim 21 wherein said payload size indication is passed during standard registration message exchange from said one network receiving entity to

a database associated with said mobile station, and wherein said payload size indication is passed during standard registration message exchange from said database to said network sending entity.

23. A method in accordance with Claim 21 wherein said payload size indication is passed during standard registration message exchange from said one network receiving entity to said network sending entity.

24. A method in accordance with Claim 21 wherein said one network receiving entity is a Mobile Switching Center (MSC).

25. A method in accordance with Claim 21 wherein said one network receiving entity is a Mobile Data Intermediate System (MDIS).

26. A method in accordance with Claim 21 wherein said one network receiving entity is a Serving GPRS Support Node (SGSN).

27. A method in accordance with Claim 21 wherein said network sending entity is one of a Short Message Service Center (SMSC), a Message Center (MC) or a Wireless Application Protocol (WAP) server.

28. A method in accordance with Claim 22 wherein said database is a Home Location Register (HLR).



29. A method in accordance with Claim 22 wherein said standard registration message exchange includes one of an Authentication On Initial Access message exchange, a Direct FeatureRequest With Call Routing message exchange, a LocationRequest message exchange, an OriginationRequest message exchange, a QualificationRequest message exchange, a RegistrationNotification message exchange, or a TransferToNumberRequest message exchange.

30. A method in accordance with Claim 23 wherein said standard registration message exchange includes one of an SMSNotification message exchange or an SMSRequest message exchange.

31. A system for providing improved teleservice messaging to a mobile station in a wireless communication network, comprising:

means for providing to a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said mobile station via network receiving entities serving said mobile station;

said maximum teleservice payload size indication being utilizable by said sending network entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities; and

means for originating said payload size indication from one of said network receiving entities as a message parameter during standard registration message exchange involving said one network receiving entity.

32. A system in accordance with Claim 31 wherein said originating means is adapted to provide said payload size indication during standard registration message exchange from said one network receiving entity to a database associated with said mobile station, and wherein said providing means is adapted to provide said payload size indication during standard registration message exchange from said database and said network sending entity.

33. A system in accordance with Claim 31 wherein said providing means is implemented using said originating means to provide said payload size indication from said one network receiving entity during standard registration message exchange between said one network receiving entity and said network sending entity.

34. A method in accordance with Claim 31 wherein said one network receiving entity is a Mobile Switching Center (MSC).

35. A system in accordance with Claim 31 wherein said one network receiving entity is a Mobile Data Intermediate System (MDIS).

36. A system in accordance with Claim 31 wherein said one network receiving entity is a Serving GPRS Support Node (SGSN).

37. A system in accordance with Claim 31 wherein said network sending entity is one of a Short Message Service Center (SMSC), a Message Center (MC) or a Wireless Application Protocol (WAP) server.

38. A system in accordance with Claim 31 wherein said database is a Home Location Register (HLR).

39. A system in accordance with Claim 32 wherein said standard registration message exchange includes one of an Authentication On Initial Access message exchange, a Direct FeatureRequest With Call Routing message exchange, a LocationRequest message exchange, an OriginationRequest message exchange, a QualificationRequest message exchange, a RegistrationNotification message exchange, or a TransferToNumberRequest message exchange.

40. A system in accordance with Claim 33 wherein said standard registration message exchange includes one of an SMSNotification message exchange or an SMSRequest message exchange.

41. In a wireless communication system, a method for providing improved teleservice messaging to a mobile station communicating through the wireless communication system, comprising the steps of:

receiving at a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said wireless station via network receiving entities serving said mobile station;

utilizing said payload size indication at said network sending entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities;

said receiving step including receiving said payload size indication from one of said network receiving entities at said network sending entity via a database associated with said mobile station; and

said receiving step further including first receiving said payload size indication at said database and thereafter at said network sending entity during standard registration message exchange between one of said network receiving entities and said database, and between said database and said network sending entity, respectively, during operations of said wireless communication system.

42. In a wireless communication system, a method for providing improved teleservice messaging to a mobile station communicating through the wireless communication system, comprising the steps of:

providing to a network sending entity an indication of the maximum teleservice payload size that can be sent by said network sending entity to said wireless station via network receiving entities serving said mobile station;

said payload size indication being utilizable at said network sending entity to format the size of teleservice messages sent by said network sending entity to said mobile station via said network receiving entities;

said providing step including providing said payload size indication from one of said network receiving entities to said network sending entity via a database associated with said mobile station; and

said providing step further including providing said payload size indication to said database and to said network sending entity during standard registration message exchange between one of said network receiving entities and said database, and between said database and said network sending entity, respectively, during operations of said wireless communication system.